



*Telfer - Copper Concentrate and Pyrite Regrind*

## FINE AND ULTRA-FINE GRINDING

### SCOPES OF WORK

GR Engineering has been closely involved in the study and subsequent project delivery of several fine and ultra-fine grinding applications which have used most of the available grinding technologies for this application including: Isamills, Vertimills, HIGMills and consideration of Pala Mills.

- **Telfer Regrind Project (2012):** installation of an M3000 Isamill on copper concentrate duty and an M5000 on regrinding pyrite concentrate;
- **Iron Duke Magnetite Expansion Project (2013):** included installation of M10000 Isamill on a magnetite concentrate regrind duty from  $F_{80}$  of 60  $\mu\text{m}$  to  $P_{80}$  of 30  $\mu\text{m}$ ;
- **Phu Kham Increased Recovery Project (2013):** installation of an M10000 concentrate regrind duty from  $F_{80}$  of 75  $\mu\text{m}$  to  $P_{80}$  of 20  $\mu\text{m}$ .

GR Engineering process design and engineering personnel are familiar with the testing, design, installation and commissioning requirements for the full range of equipment deployed for fine grinding and ultra-fine grinding applications that are typically recommended by vendors for base metals concentrate, magnetite, heavy mineral and mineral sands production industries. Experience in taking these projects from fine grinding studies through design phase, optimised equipment selection and subsequent project delivery in greenfields or brownfields applications is a forte for GR Engineering.

**Project Clients:** Newcrest Mining Limited - Telfer, Arrium Mining & Materials - Iron Duke Expansion, PanAust Limited - Phu Kham Increased Recovery Project.

**Project Type:** Brownfields, Expansion

**Project Manager:** Telfer & Iron Duke - Stuart Peirce, Phu Kham - Matthew Wilson

**Process Manager:** Peter Allen

**Study Clients:** AngloGold Ashanti Australia - Sunrise Dam UFG studies (Scoping & PFS), Atherton Resources - Chillagoe HIGMill, Arrium Mining & Materials - Iron Duke UFG optimisation, Polimetals - Gediktepe Re-grind studies, Yamana Mining Corp - Cerro Moro Concentrate Regrind Circuit, Azumah Resources Limited - Wa Gold Project fine grinding of flotation concentrate from Julie Deposit.